

HAROLD EICHELBERGER RETIRES AFTER 27 YEARS OF SERVICE



Faster and more organized than a Pentium III computer!!! More knowledgeable than a set of encyclopedias!!! Able to assist Kauai's water systems faster than ASAP!!! Neither rain, nor shine, nor HURRICANE could prevent him from serving the drinking water community of Kauai!!!

On December 29, 2000, after 27 years of service with the State of Hawaii, Harold Eichelberger, Registered Sanitarian with the Safe Drinking Water Branch on Kauai retired.



During his time with the Safe Drinking Water Branch, Harold provided Kauai's water systems with valuable information and assistance in providing the people of Kauai with safe drinking water. Also, in the aftermath of Hurricane Iniki, Harold worked diligently to ensure that Kauai's water systems were providing safe water to its citizens and for which he was presented with a Department of Health Sustained Superior Performance Award. Harold served as an inspiration to all of us through his dedication to providing the citizens of Kauai with safe drinking water. He will be greatly missed.

P.S.- Message from Harold indicates that he is enjoying his retirement immensely. (

REVISED OPERATOR CERTIFICATION RULES PASSED

The public hearing on the proposed revisions to Chapter 25 was held on December 7, 2000. There was one person present to testify, David Craddick, Director, Maui Department of Water Supply.

The final rules (Chapter 25) were delivered to the Governor's Office for final approval on December 26, 2000. The rules were approved and signed by the Governor on December 27, 2000, with the effective date of the rules being January 8, 2001.

Copies of rules have been mailed to all public water systems. Others wishing to inquire about the final rules should contact the Safe Drinking Water Branch at (808) 586-4258. The rules can also be downloaded from the website at <http://www.hawaii.gov/health/rules/ADMRULES.html>.

2001 LEGISLATIVE ACTIVITIES RELATED TO SAFE DRINKING WATER

It is once again the beginning of the new year, and with it the start of the new State Legislative Session. In session there is only one Bill for an Act Related to Safe Drinking Water that relates to the meeting of federal primacy requirements for banning leaded materials from drinking water distribution systems. The Bill would amend section 340E-7, Hawaii Revised Statutes, to extend the requirement to use "lead free" components in drinking water distribution systems. Plumbing fittings and fixtures would be required to meet National Sanitation Foundation (NSF) Standard 61, Section 9.

More information on Drinking Water and the NSF Standard will be presented in the next issue of "The Water Spot 2001."

ANNUAL ENGINEERING SECTION REPORT FOR 2000

New Source Approvals

For the calendar year 2000, a total of eleven (11) source approvals were issued through the engineering section.

<u>Date</u>	<u>Name of Source</u>	<u>State Well Number</u>	<u>Public Water System</u>
05/31/00	Kokee-Noe Well	2-0739-03	PWS #425 Kokee State Park
08/09/00	Kapulehu Well No. 3	8-4657-01	PWS #163 Kapulehu
08/11/98	Kunia Wells III, Pump 1	3-2301-40	PWS #335 BWS Waipahu-Ewa-Waianae
08/11/98	Kunia Wells III, Pump 2	3-2301-41	PWS #335 BWS Waipahu-Ewa-Waianae
08/11/98	Kunia Wells III, Pump 3	3-2301-42	PWS #335 BWS Waipahu-Ewa-Waianae
08/17/00	Palolo Well No. 2	3-1847-02	PWS #331 BWS Honolulu-Windward -Pearl Harbor
08/25/00	Saddle Road Well 'A'	8-4110-01	PWS #130 DWS South Kohala
08/25/00	Hanapepe Well No. 4	2-5634-02	PWS #404 DW Hanapepe-Eleele
10/30/00	Wahiawa Wells II, Pump No. 2	3-2902-02	PWS #333 BWS Wahiawa
12/22/00	Hamakuapoko Well No. 1	6-5420-02	PWS #213 DWS Makawao
12/22/00	Hamakuapoko Well No. 2	6-5320-01	PWS #213 DWS Makawao

Capacity Development Strategy

From February through November 2000, the Rural Community Assistance Corporation (RCAC) and its subcontractor, Pural Water Specialty Company, conducted a total of fifteen classes at six different sites (Hilo, Kona, Wailuku, Lihue, Kaunakakai, and Pearl City) throughout the state. Each session was conducted over a two week period, with thirty six hours of instruction, followed by a certification examination administered on the final day by Safe Drinking Water Branch staff.

Of the 381 persons who attended the classes and took the certification examination, 286 operators passed with scores of 70 or higher. The passing rate in each of the four exam grade levels was significantly higher than that reported nationally by the Association of Boards of Certification for 1999. The newly revised Hawaii Administrative Rules, Title 11, Chapter 25, Rules Relating to Certification of Public Water System Operators, will "grandfather" successful participants who have the necessary work experience. Almost all of the approximately 130 community water systems in the State of Hawaii that will be needing certified water distribution system operators participated in this initial phase of our capacity development program.

ANNUAL MONITORING SECTION MESSAGE FOR 2000

All required water quality monitoring samples collected and analyzed by the Department of Health for the year 2000 were successfully completed. This does not include the Phase II/V sampling which must be performed by the water purveyors.

In order to lower the detection limit for 1,2,3-Trichloropropane (TCP), its analysis method was switched to EPA Method 504 during the month of May. This method lowered the minimum detection limit from 0.2 ug/L to 0.04 ug/L. As a result of this change, a number of sample locations were found to have very low but detectable levels of TCP. These sites are being monitored quarterly for any significant changes in TCP concentrations.

2001 is the final year of the current 3-year monitoring compliance period. We look forward to a favorable completion of monitoring during this period and to the start of the 2002 - 2004 monitoring compliance period.

The Monitoring Section recognizes the efforts made by samplers throughout the State. These efforts make it possible to obtain the thousands of samples required to keep up with the program's busy monitoring schedule.

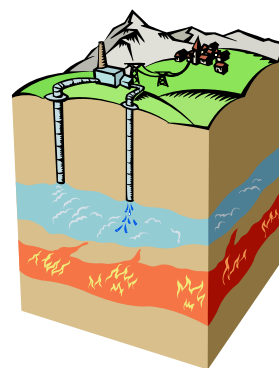
ANNUAL GROUNDWATER POLLUTION CONTROL SECTION REPORT FOR 2000

Underground Injection Control (UIC) Facilities

	<u>Surface Drainage Well Facilities</u>	<u>Industrial/Sewage/Commercial Injection Well Facilities</u>
Permit Applications Received	39	50
Approval to Construct Issued	17	4
Permit Exemptions Processed and Issued	12	0
Permits Issued	17	39
Injection Well Closure Projects Completed	2	4
Formal Enforcement Actions Issued	0	1

Groundwater Protection Program Accomplishments for 2000

1. Completion of the Hawaii Comprehensive State Groundwater Protection Program Strategy/Plan. Strategy/Plan submitted to and preliminarily approved by the U.S. Environmental Protection Agency, Region IX.
2. Completion of the biennial Clean Water Act 305(b) report to Congress regarding the status of Hawaii's groundwater resources.
3. Completion of the Baldwin High School student demonstration project and grant regarding source water assessment and protection measures.
4. Draft completion of the 1999-2000 Groundwater Contamination Maps for the State of Hawaii. Drafts are now pending technical review.



WHAT DO THE NEW OPERATOR CERTIFICATION RULES MEAN?

Operator Certification - The Effects on Systems and Operators - Questions and Answers

Why do water systems need certified operators?

Experienced and trained personnel help ensure that safe drinking water is served to the public. New Environmental Protection Agency (EPA) guidelines and revised state rules require that every community and non-transient noncommunity water system have at least one certified distribution system operator (DSO).

How many Hawaii water systems are affected?

Of the 132 public water systems now regulated, 129 are required to have certified DSOs (all water systems except Mauna Kea State Park, Hawaii Nature Center, and Polihale State Park). **All personnel** operating surface water treatment plants (WTPs) and ground WTPs are required to be certified. All personnel operating fluoridation facilities must be certified - either as a WTP operator (WTPO) or a DSO.

When must a newly affected system have a certified operator?

Surface WTP operators were already required to be certified - these requirements have not changed. The requirements for operators of distribution systems and ground WTPs to be certified are new. These new rules were effective as of January 8, 2001, and the Safe Drinking Water Branch and the Board of Certification of Public Water System Operators will be working with water systems to get their operators certified as quickly as possible.

Many of the DSOs have already taken 'early' certification exams at DSO training sponsored by the Dept. of Health in 2000. All but about seven public water systems are expected to qualify operators for certification, based on the operators passing the exam and having sufficient previous work experience. It is expected that every water system will have at least one regular or conditionally certified operator by June 30, 2001. Those systems that do not have a certified operator can pursue contracting out their operations to private companies which employ certified operators.

How does an uncertified DSO get certified? For DSOs, there are different options.

1. An operator who took the DSO training and passed the early certification exam is eligible to apply for **regular** certification. The board of certification will evaluate whether each operator has the satisfactory experience in operating a distribution system - the minimum requirement will be one year of experience as of June 30, 2001.
2. An existing operator who did not pass the certification exam but has at least one year of experience by June 30, 2001, can apply for **conditional** certification at the grade level corresponding to the level of the distribution system at which the operator works. Conditional certification is similar to EPA's "grandparenting" provision, recognizing that many existing operators may have difficulty meeting the education and experience requirements for certification. For example, an operator with at least one year of experience in operating a Class 3 system (population 15,001 to 50,000) can apply for Grade 3 conditional certification.

The conditional certification is valid for two years from the issuance date. During these two years, the operator will have about four chances to take the certification exam. The first 2001 DSO certification exam is scheduled for June 26, 2001. **The application, application fee, and exam fee are due three months before the exam, or by March 26, 2001.** It is important to note that the *category* of conditional certification expires on December 31, 2003.

3. An operator who earns one year of experience *after* June 30, 2001 can apply for Grade 1 regular certification after he or she has obtained the one year of experience. An operator applying for regular certification must meet the education and experience requirements for certification. The minimum education requirement is a high school degree, a GED, or the equivalent of a GED (a minimum of an 8th grade education plus four years of DSO experience.)

How does an uncertified ground WTP operator get certified?

Existing operators of ground WTPs who have one year of experience by June 30, 2001, can also apply for conditional certification. Again, the conditional certification is valid for two years, or through December 31, 2003, whichever is earlier. The first 2001 WTPO certification exam is scheduled for September 11, 2001. The application, application fee and exam fee are due by **June 11, 2001.**

What about operators of new WTPs?

Operators of new Class 1 or Class 2 WTPs brought online after June 30, 2000, such as corrosion control treatment plants, are eligible for **provisional** certification. Please call Nora Macariola-See or Ann Zane of the Safe Drinking Water Branch at 586-4258 for more information on provisional certification.

What must operators do to remain certified?

Each operator must renew his or her certification when it expires. In order to renew, each operator must earn Continuing Education Units (CEUs) by attending training. Eight hours of training are equivalent to one CEU. Grades 1 and 2 operators will need to earn 1.5 CEUs to renew every three-year renewal cycle. Grades 3 and 4 operators will need 3.0 CEUs to renew every renewal cycle.

How much does it cost to get certified?

The application fee for regular certification (for those operators who took and passed the early certification exam) is \$20. The application fee for conditional certification with exam is \$70 (\$20 for the application, \$20 for the certificate and ID card, and \$30 for the exam). The application fee for regular certification with exam is \$50 (\$20 for the application and \$30 for the exam).

The difference between applying for conditional certification and regular certification is that the person with conditional certification is certified for up to two years, after the application is approved. The person with regular certification is certified only after he or she passes the exam. The person applying for conditional certification must be an existing operator with one year of experience by June 30, 2001, and can apply for the level of certification corresponding to the level of the distribution system at which he or she works. The person applying for regular certification must meet the full educational and experience requirements for certification.

Whom can I talk to if I have questions?

If you have any questions, or would like a copy of the application forms, please call Nora Macariola-See or Ann Zane at 586-4258.

CONSUMER CONFIDENCE REPORT INFORMATION

This year's CCR deadlines are as follows:

- (1) Water sellers (water systems) must provide monitoring results to water systems which purchase from them by:
- (2) CCRs must be prepared and distributed to customers by:
- (3) Water systems must submit a certification that they have prepared and distributed the CCR to their customers by:

APRIL 1, 2001

JULY 1, 2001

OCTOBER 1, 2001

IMPORTANT NOTE: Due to significant increases in staff workloads, the 2000 DOH monitoring data (in electronic format) will not be routinely sent to the water systems (as was done for 1998 and 1999). Those water systems requiring the 2000 DOH monitoring data (in electronic format) should contact Daniel Chang of the Safe Drinking Water Branch at (808) 586-4258 to make a request and arrangements for obtaining the data.

NEWS RELEASE

Trace amounts of chemicals found in Oahu and Maui water systems.

During routine sampling of drinking water systems across the state, the Department of Health (DOH) has found minute trace amounts of organic and inorganic chemicals in separate water systems. None of the chemicals discovered were at levels that exceed drinking water standards.

Honolulu Board of Water Supply (BWS), Waipio Heights system and Maui Department of Water Supply, Lahaina system

Trace levels of 1,2,3-Trichloropropane (TCP) were detected in samples collected from the Honolulu BWS Waipio Heights I Pump 2 well. TCP was detected at 0.16 ppb, well below the state maximum contaminant level (MCL) of 0.8 ppb. TCP was a contaminant of soil fumigants that were used in pineapple fields in Hawaii. The Environmental Protection Agency (EPA) does not currently regulate TCP, so there is no federal MCL for this contaminant.

TCP was also confirmed in samples collected from the Maui Department of Water Supply's Honokohua Well A and Napili Well C, in the Lahaina water system. The concentrations of TCP at Honokohua Well A and Napili Well C were 0.04 ppb and 0.05 ppb, respectively. These levels are well below the state MCL.

Honolulu BWS Waipahu-Ewa-Waianae system

Trace levels of 1,2-Dichloropropane (DCP) were confirmed in samples collected from the Honolulu BWS Kunia II GAC West Contactor #3-4. DCP was detected at between 0.3 and 1.0 micrograms per liter or parts per billion (ppb). The federal and state MCL for DCP is 5 ppb. The federal MCL is set to avoid health risks based on a lifetime of consuming water with a certain level of contaminant. DCP was a component of soil fumigants that were used in pineapple cultivation before its ban in the early 1980's.

BWS removed the GAC contactors from service and began using other contactors, after it was determined that DCP breakthrough occurred.

Hawaii County Club

Mercury was confirmed in samples collected from the Hawaii Country Club Well in Kunia, Oahu. The concentration of mercury found was 0.0006 milligrams per liter or parts per million (ppm). The federal and state MCL for mercury is 0.002 ppm.

The Hawaii Country Club has been using a carbon filter to treat its water. Mercury was not detected in samples collected after the carbon filter.

While none of these findings represents a health threat, the DOH will continue to monitor these sources to ensure that public health is not compromised.

Released: November 29, 2000 (DOH #00069)

AWWA SATELLITE TELECONFERENCE
Alternative Disinfectants: Choices For the Future
Thursday, March 8, 2001, 7:00 a.m. to 10:30 a.m.

Presented live via satellite at three locations near you!

Department of Health Laboratory in Pearl City, Maui Community College, and Kauai Civil Defense Office.

Coordinator: Jacky Takakura phone: (808) 270-8046 e-mail: jacky.takakura@co.maui.hi.us

An all-new program for water treatment and distribution professionals

The US Environmental Protection Agency (USEPA) is expected to propose the Stage 2 Disinfectants/Disinfection By-products Rule (D/DBPR) and the Long-Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR) in the spring of 2001, with final rule in May 2002. These rules will require more thorough monitoring and treatment, of which alternative disinfectants could be a major part. The D/DBPR protects against health risks associated with certain disinfection by-products, while the LT2ESWTR provides stronger protection against waterborne pathogens like *Cryptosporidium*. The USEPA estimates that approximately 60% of large systems and up to 70% of small systems will be required to make changes in operations, including changes in disinfection practices, because of these rulings.

Is your utility prepared to deal with these changes?

This all-new program will give you the information you need on what disinfection alternatives are available to the widely used and trusted chlorine disinfection process. Experts in the field will give you detailed information on alternative disinfectants and oxidants that will help you best determine what's right for your utility.

A sample of what you'll get from the teleconference

- How to determine which disinfectant is best for your water utility plant
- An overview of the following alternative disinfectants and oxidants: chlorine compounds, chloramines, chlorine dioxide, ultraviolet, ozone, and potassium permanganate
- How regulatory issues such as the Stage 2 D/DBPR and the LT2ESWTR will impact the use of disinfectants
- Disinfectants: their use, availability, properties, advantages and disadvantages, application techniques, equipment considerations, and their ability to minimize DBPs.
- Case studies on how the use of alternative disinfectants and oxidants has been successful in water treatment
- Costs that must be considered when using these alternative disinfectants
- What role oxidants, such as potassium permanganate, play in minimizing disinfection by-products

Who Should Participate

- Water treatment and distribution operators
- Regulatory personnel
- Consultants and manufacturers
- Water utility engineers, supervisors, and managers
- Water quality/production managers

Whether you're a small or large utility, groundwater or surface water system, this program will give you practical solutions to meeting these wide-ranging regulations. Take advantage of this outstanding opportunity, and register now to participate! Continuing Education Units available for certified water treatment facility and distribution system operators.

Learn from a panel of leading experts

Robert Hoehn, Ph.D., (*Consultant and Professor Emeritus, Virginia Tech University*) is an internationally known expert in applications of chlorine dioxide to drinking water treatment. During his tenure as a professor of environmental engineering at Virginia Tech, Dr. Hoehn was co-principal investigator on several chlorine dioxide-related projects funded by the AWWA Research Foundation. He also has co-authored several papers on the subject of chlorine dioxide. Since retirement from Virginia Tech in 1997, he has continued to conduct research at Virginia Tech on a limited basis, and he consults for a major engineering firm on water-treatment projects involving chlorine dioxide application, taste-and-odor control, DBP control, and reservoir management issues.

Charlotte Smith, (*President, Charlotte Smith & Associates*) provides consulting services on issues related to water quality and regulatory compliance. Before starting her firm in 1994, she was the Director of Water Quality for General Water Works Corporation, a subsidiary of Lyonnaise des Eaux, and Manager of Water Quality for New York City's Bureau of Water Supply. Ms. Smith holds a bachelor of science in microbiology from the University of Michigan and a master's degree in community health from the City University of New York. She will be presenting the use of chloramines as a disinfectant.

Philip Vella, (*Product Manager, Carus Chemical Company*) has product responsibility for Cairox' potassium permanganate used in municipal drinking and wastewater markets, including taste and odor control, iron and manganese removal in drinking water, and odor and corrosion control in wastewater systems. He has also managed the company's Applications Support Laboratory, which included conducting treatability studies and sample analysis for the areas of drinking water, wastewater, and organic & inorganic catalytic destruction. He previously worked at Olin Water Services where he developed the small scale sodium chlorate-based chlorine dioxide generator.

Kerwin L. Rakness, (*Consultant, Process Applications*) brings his expertise in ozone equipment performance testing, ozone system start-up and optimization training and assistance, and wastewater treatment plant evaluation, optimization and start-up assistance to the program. He has conducted research studies in the areas of high-purity oxygen activated sludge, biological aerated filter, and activated bio-filter wastewater treatment processes in the area of ozone for water and wastewater treatment. He was a contributing author of the AWWARF book titled, "Ozone in Water Treatment: Application and Engineering," and was primary author for the ozone section of the "EPA Disinfection Design Manual."

James P. Malley, Jr., Ph.D., (*Associate Professor, University of New Hampshire, Environmental Research Group*) has experience in the environmental engineering field, including extensive experience on the physical and chemical treatment of drinking water. He has directed \$5.3 million dollars in research funding to study and optimize alternative disinfection technologies for drinking water that minimize disinfection by-products and maximize inactivation of cysts/oocysts and viruses. He has directed 22 UV pilot plant studies on disinfection of waters and wastewaters to minimize disinfection by-products (DBPs) and control protozoan (*Giardia* and *Cryptosporidium*) cysts/oocysts, viruses, Legionella and other bacteria.

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AWWA SATELLITE TELECONFERENCE REGISTRATION FORM

Choose a location

" Department of Health Laboratory
2725 Waimano Home Road
Pearl City, Oahu

" Maui Community College
Laulima Building, Room 102
310 Kaahumanu Ave.
Kahului, Maui

" Civil Defense Office
County of Kauai
4396 Rice Street
Lihue, Kauai

Please be at the site by 6:45 a.m. The teleconference will begin promptly at 7:00 a.m.

Attending Teleconference

Name(s) _____

Organization/Agency _____

Address _____

Phone _____ Fax _____

Registration Fee (includes refreshments) due **March 1, 2001**

" AWWA member **\$40.00** AWWA member # _____

" Non-member **\$50.00** **MAKE CHECKS PAYABLE TO HAWAII SECTION AWWA**

Mail registration form and payment to:

Jacky Takakura
Maui Department of Water Supply
P. O. Box 1109
Wailuku, HI 96793-6109

*Government employees may fax registration
and subsequently remit payment upon
receipt of their purchase order.
Fax: (808) 270-7951*

" Check here if you are a certified water treatment or distribution system operator and would like CEU's.

The Water Spot 2001 is published by the Safe Drinking Water Branch, Environmental Management Division of the Hawai'i State Department of Health and is distributed to water purveyors, water system operators, staff, consultants, and other interested parties.

*The Water Spot 2001 may also be viewed on the Safe Drinking Water Branch's web site at:
<http://www.hawaii.gov/health/eh/sdwb>*

*Please send your
suggestions, ideas,
questions or
comments to:*

***THE WATER SPOT 2001**
Safe Drinking Water Branch
State Department of Health
919 Ala Moana Blvd., Room 308
Honolulu, Hawaii 96814*

OR

*Fax us at (808) 586-4370, Attn: "**THE WATER SPOT 2001**"*

SDWB WEB SITE:

<http://www.hawaii.gov/health/eh/sdwb>

HISWAP WEB SITE:

<http://www.aloha.net/~will/hiswap.html>



BENJAMIN J. CAYETANO
Governor of Hawaii

BRUCE S. ANDERSON, Ph.D., M.P.H.
Director of Health

GARY GILL
Deputy Director for
Environmental Health

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